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TRACTOR-DRAWN AGRICULTURAL IMPLEMENT

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This invention relates to the attachment of agricultural implements to tractors and has for its object means for so hitching an implement to a tractor, that many of the present day difficulties will be overcome. For example, the attachment of an ordinary tractor plough to a tractor is made by a vertical pin behind the rear axle of the tractor, this being necessary in order that the tractor may turn to right and left without allowing the implement to strike the tractor wheels. There are many objections to this form of connection. For example, when ploughing on a hillside the rear end of the tractor slides down the hill, and this carries the implement with it and makes the work very unsatisfactory. Cultivating row crops presents one of the greatest difficulties in using a tractor, because the ordinary single pin connection for an implement means that the implement itself has to be a long way behind the tractor and will wander to either side and destroy the crops. If, when using a tractor, for row crop work the operator, for example, steers to the left, this has the effect of first moving the implement momentarily to the right, owing to the fact that the point of attachment is behind the rear axle. The ideal thing would be to attach the implement close to the front axle and it would then follow the steering, but such attachment would prevent lateral and vertical freedom of movement for the implement.

In my prior Patent No. 1,464,130, August 7, 1923, a link motion hitch is described which causes the effective line of draft to be from a position other than that of the actual connection between the tractor and the implement so that the implement is held down in the ground.

According to the present invention, I provide means constituting a hitch connection for coupling an implement to a tractor comprising links and means for connecting the links to both the tractor and the implement at points spaced apart, the said connecting means and the spacing thereof being such that, in operation, the implement will swing laterally in such manner as to follow the steering of the tractor.

Moreover, I may arrange the said hitch connection so that there is combined with the lateral swinging movement specified, an effective line of draft acting from a position other than that of the said actual connection between the implement and the tractor.

The invention will now be described with reference to the accompanying drawings whereon, by way of example only, I have shown how the invention may be applied to a plough, and also how the invention may be combined with the draft connection described in my prior Patent No. 1,464,130. The invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a side elevation of a tractor and a one furrow plough attached to the tractor in accordance with this invention.

Fig. 2 is a plan view corresponding to Fig. 1.

Fig. 3 is a side elevation of part of a tractor and of part of an implement attached thereto, according to a modified form of the invention.

Fig. 4 is a plan view corresponding to Fig. 3.

Referring to the drawings, the numeral 1 denotes a tractor and 2 a plough. The tractor has a rearward extension 1^a which has two lateral ball projections 4^a, 5^a and a series of upstanding ball projections 4^b, 5^b of which there is an even number.

The plough has a transverse shaft 8 rotatably mounted in it and having cranked ends which are set at different angles to the shaft. The cranks terminate in balls 4^c and 5^c. A hand lever 9 is fixed on the shaft 8, this lever having a detent 9^a engaging with a toothed sector 9^b fixed on the plough.

Two links 4 and 5 having sockets at both ends are fitted over the balls 4^a, 4^c and 5^a, 5^c to couple the plough to the tractor and allow universal freedom of movement between the two. The distance between the rear ends of the links is greater than the distance between their front ends.

When, in ploughing, the tractor is turned to the left or right the plough does not swing laterally about the centre of the rearward extension 1^a of the tractor, but the effect of the